IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:	**KASPER et al.**	Examiner:	Ren Luo Yan
Serial No.:	10/628,652	Confirmation No.:	4422
Filing Date:	July 28, 2003	Art Unit:	2854
Customer No.:	23280	Attorney Docket:	6001.1283
Title:	**FLUID SUPPLY DEVICE FOR A PRINTING MACHINE**		

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June 4, 2007

APPELLANTS' BRIEF UNDER 37 C.F.R. § 41.37

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in response to the non-final Office Action dated December 4, 2006. The statutory fee of $500.00 was previously paid with the Appeal Brief dated September 13, 2006 and is applied to this Appeal Brief.

1. REAL PARTY IN INTEREST

The real party in interest is Goss International Americas, Inc., a corporation having a place of business in Dover, New Hampshire, and the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned to Heidelberger Druckmaschinen AG by an assignment originating from inventors Kent Dirksen Kasper and Stephen Arthur Austin. The most recent conveyance was recorded on October 20, 2004 at reel 015886, frame 0713.

2. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal, interference or judicial proceeding that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

3. STATUS OF CLAIMS

Claims 1 to 9, 12 to 14, 16 to 18 and 20 to 23 are pending. Claims 1 to 9, 12 to 14, 16 to 18 and 20 to 23 have been rejected as per the Office Action dated December 4, 2006. Claims 10, 11, 15 and 19 have been canceled without prejudice.

The rejection to claims 1 to 9, 12 to 14, 16 to 18 and 20 to 23 thus is appealed. A copy of appealed claims 1 to 9, 12 to 14, 16 to 18 and 20 to 23 is attached hereto as Appendix A.

4. STATUS OF AMENDMENTS

In response to the Office Action dated December 4, 2006, no claims have been amended.

A Notice of Appeal was filed on March 1, 2007, and received by the U.S.P.T.O. on March 5, 2007.

5. SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 1 recites a fluid delivery device (i.e. Fig. 1, i.e. page 3, lines 3 to 4) for a printing machine (i.e. 30 in Fig. 1, i.e. page 3, line 2) comprising: a rotating roller (i.e. 14 in Fig. 1, i.e. page 3, line 5) having a roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5) with a roller radius of curvature (i.e. page 3, line 16), the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5)

carrying a fluid film (i.e. 13 in Fig. 2, i.e. page 4, line 7); and a metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) having an edge (i.e. 36 in Fig. 1, i.e. page 3, lines 8 to 9) for splitting the fluid film (i.e. 13 in Fig. 2, i.e. page 4, line 7) and a first concave surface (i.e. 22 in Fig. 1, i.e. page 3, line 6) facing the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5); the metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) being movable with respect to the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5) so that the edge (i.e. 36 in Fig. 1, i.e. page 3, lines 8 to 9) moves along a radial line (i.e. 35 in Fig. 1, i.e. page 3, line 25) from a center of the rotating roller (i.e. 14 in Fig. 1, i.e. page 3, lines 3 to 4).

Independent claim 12 recites a method for metering fluid in a printing press (i.e. 30 in Fig. 1, i.e. page 3, line 2) having an operating speed comprising the steps of: supplying fluid to a supply container (i.e. 12 in Fig. 1, page 3, lines 3 to 4); rotating a roller (i.e. 14 in Fig. 1, i.e. page 3, lines 3 to 4) so as to form a film (i.e. 13 in Fig. 2, page 4, line 7) of the fluid on a surface (i.e. 16 in Fig. 1, i.e. page 3, line 5) of the roller (i.e. 14 in Fig. 1, i.e. page 3, lines 3 to 4); and splitting the film (i.e. 13 in Fig. 2, page 4, line 7) using a metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6), the metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) having a concave surface (i.e. 22 in Fig. 1, i.e. page 3, line 6) facing the surface (i.e. 16 in Fig. 1, i.e. page 3, line 5) of the roller (i.e. 14 in Fig. 1, i.e. page 3, lines 3 to 4); wherein metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) has an edge (i.e. 36 in Fig. 1, i.e. page 3, lines 8 to 9) movable solely in a radial direction with respect to the roller (i.e. 14 in Fig. 1, i.e. page 3, lines 3 to 4).

Independent claim 14 recites a fluid delivery device (i.e. Fig. 1, i.e. page 3, lines 3 to 4) for a printing machine (i.e. 30 in Fig. 1, i.e. page 3, line 2) comprising: a rotating roller (i.e. 14 in Fig. 1, i.e. page 3, lines 3 to 4) having a roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5) with a roller radius of curvature (i.e. page 3, line 16), the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5) carrying a fluid film (i.e. 13 in Fig. 2, page 4, line 7); and a metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) having an edge (i.e. 36 in Fig. 1, i.e. page 3, lines 8 to 9) for splitting the fluid film (i.e. 13 in Fig. 2, i.e. page 4, line 7) and a first concave surface (i.e. 22 in Fig. 1, i.e. page 3, line 6) facing the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5); the metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) being movable with respect to the roller surface (i.e. 16 in Fig. 1, i.e.

page 3, line 5); wherein the metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) has a second concave surface (i.e. 24 in Fig. 1, i.e. page 3, line 7) opposite the first concave surface (i.e. 22 in Fig. 1, i.e. page 3, line 6).

Independent claim 16 recites a fluid delivery device (i.e. Fig. 1, i.e. page 3, lines 3 to 4) for a printing machine (i.e. 30 in Fig. 1, i.e. page 3, line 2) comprising: a rotating roller (i.e. 14 in Fig. 1, i.e. page 3, lines 3 to 4) having a roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5) with a roller radius of curvature (i.e. page 3, line 16), the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5) carrying a fluid film (i.e. page 4, line 1); and a metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) having an edge (i.e. 36 in Fig. 1, i.e. page 3, lines 8 to 9) for splitting the fluid film (i.e. 13 in Fig. 2, page 4, line 7) and a first concave surface (i.e. 22 in Fig. 1, i.e. page 3, line 6) facing the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5); the metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) being movable with respect to the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5); wherein the first concave surface (i.e. 22 in Fig. 1, i.e. page 3, line 6) corresponds to an arc (i.e. A in Fig. 1, i.e. page 3, line 27) of 10 degrees or more of the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5).

Independent claim 17 recites a fluid delivery device (i.e. Fig. 1, i.e. page 3, lines 3 to 4) for a printing machine (i.e. 30 in Fig. 1, i.e. page 3, line 2) comprising: a rotating roller (i.e. 14 in Fig. 1, i.e. page 3, lines 3 to 4) having a roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5) with a roller radius of curvature (i.e. page 3, line 16), the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5) carrying a fluid film (i.e. page 4, line 1); and a metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) having an edge (i.e. 36 in Fig. 1, i.e. page 3, lines 8 to 9) for splitting the fluid film (i.e. 13 in Fig. 2, i.e. page 4, line 7) and a first concave surface (i.e. 22 in Fig. 1, i.e. page 3, line 6) facing the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5); the metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) being movable with respect to the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5); wherein a thickness of the fluid film (i.e. 13 in Fig. 2, page 4. line7) downstream from the metering element (i.e. 20 in Fig. 1, i.e. page 3, line 6) is half of an average distance (i.e. D in Fig. 2, i.e. page 4, line 14) of the concave surface (i.e. 22 in Fig. 1, i.e. page 3, line 6) from the roller surface (i.e. 16 in Fig. 1, i.e. page 3, line 5).

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 17 and 21 should be rejected under 35 U.S.C. §102(b) as being anticipated by Granger, U.S. Patent No. 3,585,932. Whether claims 1 to 4, 6 to 9, 12 to 14, 20 and 23 should be rejected under 35 U.S.C. §103(a) as being unpatentable over Shriver, U.S. Patent No. 5,003,875, in view of Granger, U.S. Patent No. 3,585,932. Whether claim 5 should be rejected under 35 U.S.C. §103(a) as being unpatentable over Shriver in view of Granger as applied to claim 1 and further in view of Dahlgren, U.S. Patent No. 3,664,261. Whether claims 16 and 22 should be rejected under 35 U.S.C. §103(a) as being unpatentable over Granger. Whether claim 18 should be rejected under 35 U.S.C. §103(a) as being unpatentable over Shriver in view of Granger as applied to claim 1 and further in view of Kistler et al., U.S. Patent No. 6,450,097.

7. ARGUMENTS

a. Rejections under 35 U.S.C. §102(b)

Claims 17 and 21

Claims 17 and 21 were rejected under 35 U.S.C. §102(b) as being anticipated by Granger, U.S. Patent No. 3,585,932.

Granger shows an automatic inking system for a rotary newspaper printing press. As discussed in the abstract, there is an inking cylinder which receives ink from an ink fountain, an ink transfer cylinder, a plate cylinder and an impression cylinder.

Claim 17 recites "a fluid delivery device for a printing machine comprising:

a rotating roller having a roller surface with a roller radius of curvature, the roller surface carrying a fluid film; and

a metering element having an edge for splitting the fluid film and a first concave surface facing the roller surface;

the metering element being movable with respect to the roller surface;

wherein a thickness of the fluid film downstream from the metering element is half of an average distance of the concave surface from the roller surface."

There is absolutely no disclosure that the thickness in Granger downstream is "half an average distance" as claimed (see present specification at [0029]). Furthermore, Granger states the ability to control the thickness and uniformity but fails to specify the limitation of half an average distance downstream. Granger does not achieve this limitation, since the reservoir 38 and cells 25 result in a different velocity profile than the present invention. See [0029]. The Office Action cites to no disclosure in Granger meeting the limitation "wherein a thickness of the fluid film downstream from the metering element is half of an average distance of the concave surface from the roller surface" as recited in claim 17.

Withdrawal of the rejection to claims 17 and 21 is respectfully requested.

b. Rejections under 35 U.S.C. §103(a)

Claims 1 to 4, 6 to 9, 12 to 14, 20 and 23

Whether claims 1 to 4, 6 to 9, 12 to 14, 20 and 23 should be rejected under 35 U.S.C. §103(a) as being unpatentable over Shriver, U.S. Patent No. 5,003,875, in view of Granger, U.S. Patent No. 3,585,932.

Shriver shows a fountain roll and assembly for a can decorating apparatus, with doctor blades 150.

Granger is discussed above.

It is respectfully submitted that it would not have been obvious to one of skill in the art to have combined the teaching of Granger with that of Shriver.

Claim 1 recites "a fluid delivery device for a printing machine comprising:

a rotating roller having a roller surface with a roller radius of curvature, the roller surface carrying a fluid film; and

a metering element having an edge for splitting the fluid film and a first concave surface facing the roller surface."

Shriver admittedly does not have a first concave surface.

Granger has a concave surface, but is only to retain pressure in the reservoir. The curved section of Granger permits the reservoir to be properly sealed, not to provide any film splitting capabilities.

Since the blade 150 of Shriver is not in contact with the reservoir, and no sealing is needed, one of skill in the art would not have looked to the curvature of Granger to alter element 150 of Shriver. Moreover, there is no teaching in Granger or Shriver at all that the curved surface improves the accuracy of the "position of the concave surface" as asserted in the Office Action.

In addition, the inker of Granger and can decorating apparatus of Shriver are completely different types of inking devices, as anilox inkers use cell based structures (which is why Granger has a pressurized reservoir). It is respectfully submitted that one of skill in the art would not have combined the references Shriver and Granger. Furthermore there is no motivation to modify Shriver in view of Granger.

Withdrawal of the rejection over Shriver in view of Granger is respectfully requested.

Claim 9: Argued Separately

With further respect to claim 9, claim 9 recites the device as recited in claim 1 wherein a thickness of the fluid film downstream from the metering element is half of an average distance of the concave surface from the roller surface.

Neither Granger nor Shriver shows this feature.

Claim 5: Argued Separately

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shriver in view of Granger as applied to claim 1 above, and further in view of Dahlgren (3,664,261).

Withdrawal in view of claim 1 is respectfully requested.

Furthermore, there is no motivation to modify Shriver and Granger in view of Dahlgren as Dahlgren is a sheet fed offset printing press.

Claims 16 and 22: Argued Separately

Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Granger.

Granger is discussed above.

Claim 16 recites "a fluid delivery device for a printing machine comprising:

a rotating roller having a roller surface with a roller radius of curvature, the roller surface carrying a fluid film; and

a metering element having an edge for splitting the fluid film and a first concave surface facing the roller surface;

the metering element being movable with respect to the roller surface;

wherein the first concave surface corresponds to an arc of 10 degrees or more of the roller surface."

Granger does not show a metering element for "splitting a fluid film" as claimed, as there is no film split by Granger. Rather the ink exits from a reservoir which is always full. Moreover, Granger does not disclose that the roller surface carries a fluid film, but rather discloses a cell structure.

Furthermore, Granger fails to disclose the "arc of 10 degrees or more of the roller surface." This would not have been obvious to one skilled in the art.

Claim 18: Argued Separately

Claim 18 was rejected under 35 U.S.C. §103(a) as being unpatentable over Shriver in view of Granger as applied to claim 1 and further in view of Kistler et al., U.S. Patent No. 6,450,097.

In view of the arguments with respect to claim 1, withdrawal of the rejection is respectfully requested.

Furthermore, there is no motivation to combine Shriver, Granger and Kistler.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance. Favorable consideration of this appeal brief is respectfully requested.

Respectfully submitted,

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APPENDIX A:

PENDING CLAIMS 1 to 9, 12 to 14, 16 to 18 and 20 to 23 OF
U.S. APPLICATION SERIAL NO. 10/628,652

Claim 1 (previously presented): A fluid delivery device for a printing machine comprising:

a rotating roller having a roller surface with a roller radius of curvature, the roller surface carrying a fluid film; and

a metering element having an edge for splitting the fluid film and a first concave surface facing the roller surface;

the metering element being movable with respect to the roller surface so that the edge moves along a radial line from a center of the rotating roller.

Claim 2 (original): The device as recited in claim 1 wherein the metering element has a second concave surface opposite the first concave surface.

Claim 3 (previously presented): The device as recited in claim 1 wherein the first concave surface has a radius of curvature similar to that of the roller radius of curvature.

Claim 4 (original): The device as recited in claim 1 wherein the first concave surface corresponds to an arc of 10 degrees or more of the roller surface.

Claim 5 (previously presented): The device as recited in claim 1 wherein the metering element is rigid.

Claim 6 (original): The device as recited in claim 1 wherein the metering element has a horizontal bottom surface.

Claim 7 (previously presented): The device as recited in claim 14 wherein the metering element has an edge movable radially along a line from a radial center of the roller.

Claim 8 (original): The device as recited in claim 1 wherein the fluid is ink.

Claim 9 (original): The device as recited in claim 1 wherein a thickness of the fluid film downstream from the metering element is half of an average distance of the concave surface from the roller surface.

Claim 10 (canceled).

Claim 11 (canceled).

Claim 12 (previously presented): A method for metering fluid in a printing press having an operating speed comprising the steps of:

supplying fluid to a supply container;

rotating a roller so as to form a film of the fluid on a surface of the roller; and

splitting the film using a metering element, the metering element having a concave surface facing the surface of the roller;

wherein metering element has an edge movable solely in a radial direction with respect to the roller.

Claim 13 (previously presented): The method as recited in claim 12 further comprising setting a distance between the concave surface and the surface of the roller.

Claim 14 (previously presented): A fluid delivery device for a printing machine comprising:

a rotating roller having a roller surface with a roller radius of curvature, the roller surface carrying a fluid film; and

a metering element having an edge for splitting the fluid film and a first concave surface facing the roller surface;

the metering element being movable with respect to the roller surface;

wherein the metering element has a second concave surface opposite the first concave surface.

Claim 15 (canceled).

Claim 16 (previously presented): A fluid delivery device for a printing machine comprising:

a rotating roller having a roller surface with a roller radius of curvature, the roller surface carrying a fluid film; and

a metering element having an edge for splitting the fluid film and a first concave surface facing the roller surface;

the metering element being movable with respect to the roller surface;

wherein the first concave surface corresponds to an arc of 10 degrees or more of the roller surface.

Claim 17 (previously presented): A fluid delivery device for a printing machine comprising:

a rotating roller having a roller surface with a roller radius of curvature, the roller surface carrying a fluid film; and

a metering element having an edge for splitting the fluid film and a first concave surface facing the roller surface;

the metering element being movable with respect to the roller surface;

wherein a thickness of the fluid film downstream from the metering element is half of an average distance of the concave surface from the roller surface.

Claim 18 (previously presented): The fluid delivery device as recited in claim 1 further comprising a reducer roll interacting with the rotating roller.

Claim 19 (canceled).

Claim 20 (previously presented): The method as recited in claim 12 wherein the first concave surface has a radius of curvature similar to that of the roller radius of curvature.

Claim 21 (previously presented): The fluid delivery device as recited in claim 17 further comprising a fluid supply container, the roller surface contacting the fluid supply container and the fluid film before splitting exiting the supply container.

Claim 22 (previously presented): The fluid delivery device as recited in claim 16 further comprising a fluid supply container, the roller surface contacting the fluid supply container and the fluid film before splitting exiting the supply container.

Claim 23 (previously presented): The fluid delivery device as recited in claim 1 further comprising a fluid supply container, the roller surface contacting the fluid supply container and the fluid film before splitting exiting the supply container.

APPENDIX B

Evidence Appendix under 37 C.F.R. §41.37 (c) (ix):

No evidence pursuant to 37 C.F.R. §§1.130, 1.131 or 1.132 and relied upon in the appeal has been submitted by appellants or entered by the examiner.

APPENDIX C

Related proceedings appendix under 37 C.F.R. §41.37 (c) (x):

As stated in "2. RELATED APPEALS AND INTERFERENCES" of this appeal brief, appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.